

NATIONAL FLOOD INSURANCE PROGRAM BASIC IN MASSACHUSETTS

DCR'S FLOOD HAZARD MANAGEMENT PROGRAM

Marshfield elevated homes

<http://www.homecentersothebysrealty.com>

5-19-17



THE EXCHANGE AGREEMENT

Flood insurance for floodplain enforcement



Title 44 CFR (Code of Federal Regulations), Parts 59 through 80, especially Part 60.3

Massachusetts:

341 out of 351 communities are in the National Flood Insurance Program

On 9-30-19 there were 60,229 active policies, with an average annual premium of \$1,280.

**NFIP Community
Status Book**



Robert Paul Properties (realtor)
website; Wareham elevated home

DEFINING THE FLOODPLAIN

Base flood = the flood having a **one percent chance** of being equaled or exceeded in any given year

A zones = area of special flood hazard with or without base flood elevations

V zones = an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources

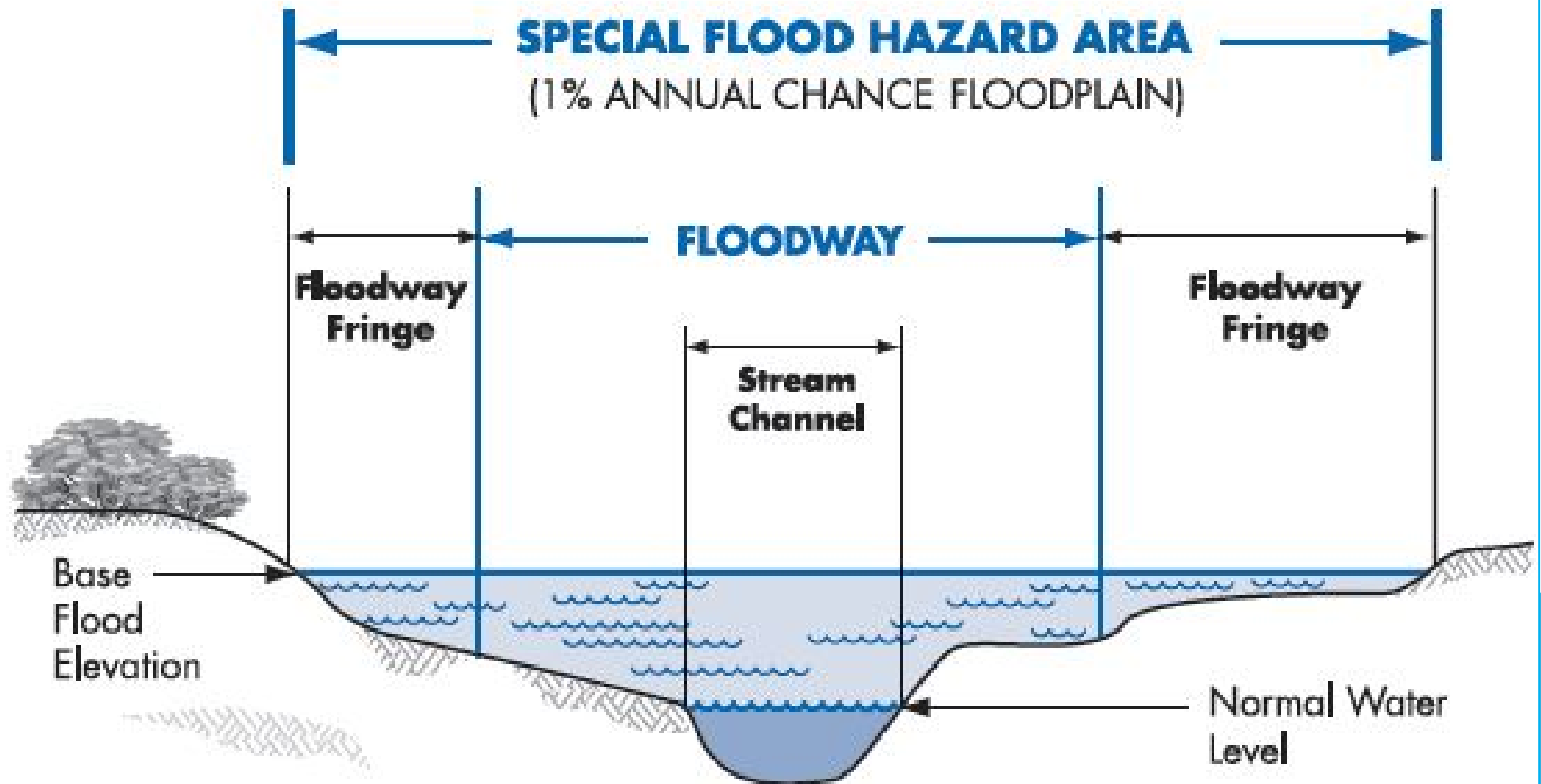
Coastal A zones = A zones within which a 1-1/2 to 3 foot wave may occur, typically associated with a V zone

.2 % flood zone = area of moderate flood hazard, often referred to as the 500-year floodplain

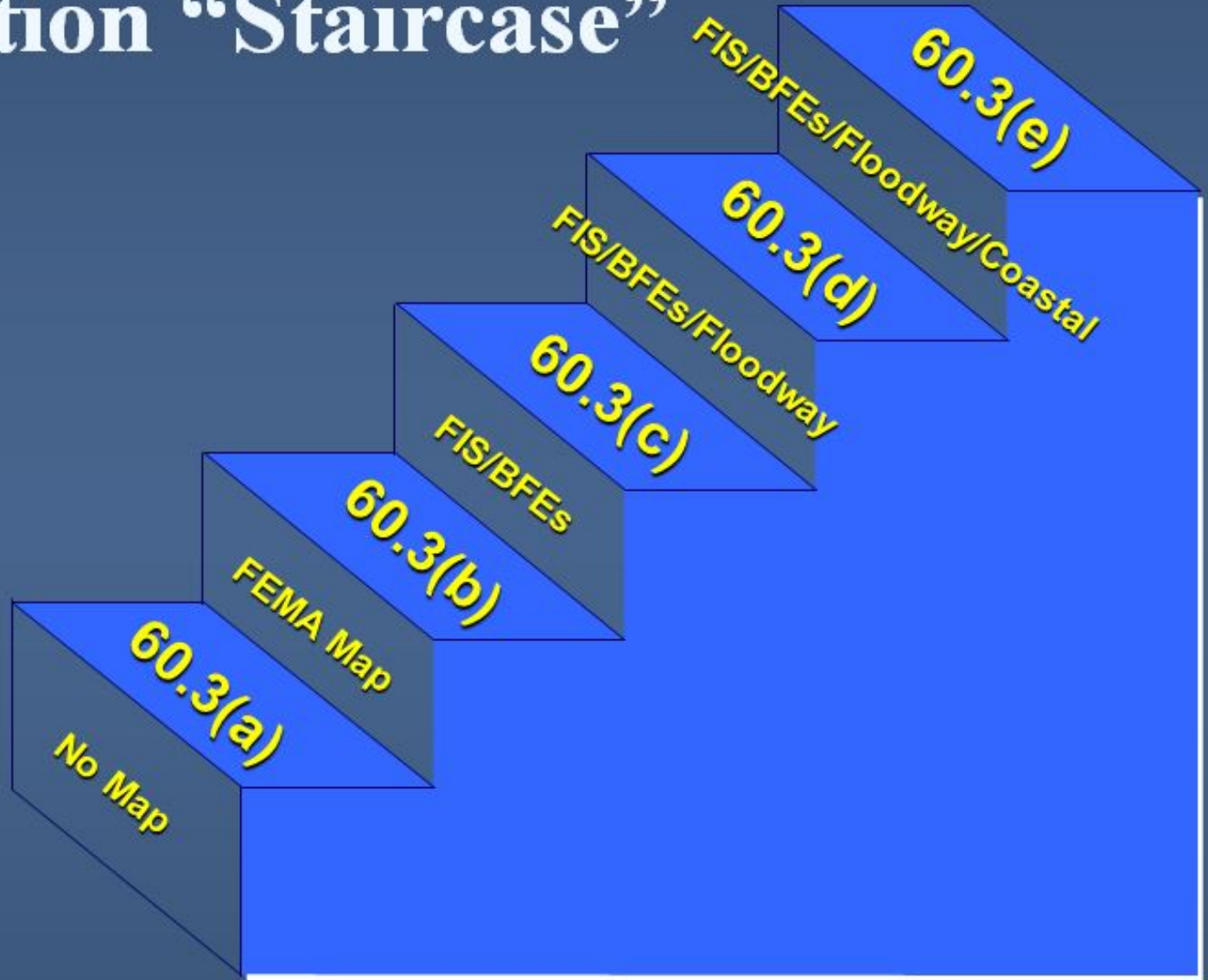
Floodway = the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height

FLOODPLAIN & FLOODWAY

Understanding the Riverine Floodplain



Regulation “Staircase”



FEDERAL REGULATIONS IN STATE AND LOCAL CODES

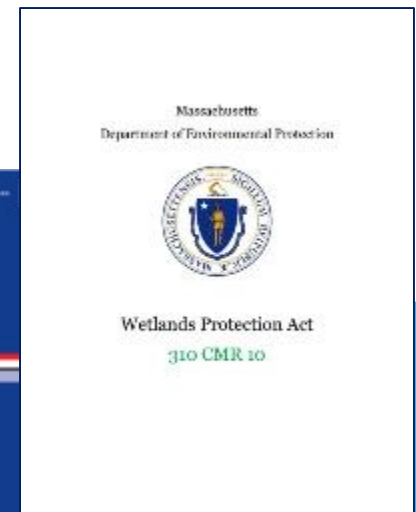
The NFIP regulations in 44 CFR must be accepted at the local level, unless these reside in statewide mandatory codes.

NFIP regulations in Massachusetts can be found in the following documents:

- Massachusetts State Building Code- amended 2015 IBC, IRC, IEBC and Appendix G (780 CMR)
- Mass. Wetlands Protection Act (310 CMR 10)
- Mass. Title V regulations (310 CMR 15, Title 5)
- MA Model Flood Ordinance, as reflected in local bylaws (AKA “flood ordinance”) which may be found in zoning bylaws or other local codes

And other pertinent Massachusetts regulations as noted, such as the DEP Inlands and Coastal Wetlands Restrictions (310 CMR 13 and 12)

**& Local
Bylaws or
Ordinances**



LOCAL BY-LAWS

Some examples include:

- In AO and AH zones, adequate drainage paths must be provided around structures
- In AE zones with regulatory floodways, encroachments are prohibited in the regulatory floodway which **would result in any increase** in flood levels within the community during the occurrence of the base flood discharge [310 CMR 10.57 (4)(a); NFIP 44 CFR 60.3(d)(3)]
- All subdivision proposals must be designed to assure that:
 - a) such proposals minimize flood damage;
 - b) all public utilities and facilities are located and constructed to minimize or eliminate flood damage; and
 - c) adequate drainage is provided to reduce exposure to flood hazards.



Merrimack River, Pawtucket Falls, Lowell
Photo by Mike Pueschel

HIGHER STANDARDS IN MA STATE REGS

- V-zone new construction: base flood elevation plus 2 feet
- A-zone new construction: base flood elevation plus 1 foot
- Substantial damage/improvement includes a special definition for foundations
- No rise in the base flood elevation is allowed anywhere in the entire floodplain

HIGHER STANDARDS IN LOCAL BYLAWS

- Percentage of lot that must be outside of FEMA floodplain
- Wider buffer areas around resources such as rivers and streams
- Waiver of height restrictions if elevating for flood mitigation
- Incentives for voluntarily elevating
higher than required



NFIP DEFINITION OF DEVELOPMENT

Any manmade change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations



2015 photo by Photo: Seth Harrison, The Journal News, USA Today.
Dredging for PCBs in the Hudson River.

NON-CONSTRUCTION DEVELOPMENT

- Floodway and watercourse revisions
- Site improvement
- Subdivisions
- Utilities
- Manufactured homes
- Recreational vehicles
- Tanks
- Temporary structures
- Permanent storage
- Fences, pools, driveways, etc.

WHY?

- Promote public health, safety and general welfare
- Manage development that may increase flood damages or erosion
- Manage alteration of natural floodplain
- Regulate the construction of barriers that could increase flood hazard
- Contribute to improved construction techniques in floodplains
- Prevent unnecessary disruption of commerce during flood events



LOCAL ENFORCEMENT

- Building official (commissioner, inspector)
- Conservation agent & commission
- Dept. of Public Works director, engineers
- Planners, community development staff
- Town administrators/ managers



Photo by WordPress.com

**Who is the
community's
floodplain
administrator?**

FLOODPLAIN DETERMINATION

Building Department: administers the State Building Code

Conservation Commission: administer the Wetlands Protection Act

Board of Health: administers Title V

Engineers? Planning board? DPW director? Emergency manager?



OR...

Surveyor

Lender's 3rd-party Determination Company

FEMA through LOMC process

NFIP COMMUNITY RATING SYSTEM (CRS)

Better than minimum floodplain management:

- Know your flood risk intimately- RLs and unmapped flood risk areas
- Use FEMA Elevation Certificates to document compliance
- Promote the purchase of flood insurance, over & over again
- Include natural & beneficial functions of a floodplain in local bylaws & policies
- Maintain a rigorous public information campaign for all segments of the community
- Apply for flood mitigation grants on behalf of your citizens
- Apply the strictest interpretation of flood resistant construction standards, & implement higher local standards
- Preserve/conserve open space that gives the floodplain additional storage capacity during a flood

<https://crsresources.org/>





FLOOD HAZARD MANAGEMENT PROGRAM

DCR houses the Flood Hazard Management Program within its Office of Water Resources. Two staff are responsible for:

- Acting as liaison between FEMA and Mass communities
- Offering technical support to NFIP communities
- Monitoring floodplain development
- Reviewing state agency floodplain projects
- Coordinating with MEMA on hazard mitigation grants and planning efforts
- Offering training on NFIP regulations, FEMA flood maps, and general good principles of floodplain management
- Assisting general callers with NFIP questions and concerns
- Coordinating with MEMA and FEMA during flood events





Joy Duperault, CFM
State NFIP Coordinator
(617) 626-1406
joy.duperault@mass.gov

Eric Carlson
Floodplain Engineer
(617) 626-1362
eric.carlson@mass.gov



Getty photo:
John Cancalosi